query sequencel	LVAFADFG-SVTFTNAEATSGGSTVGPSDATVMDIEQDGSVLTETSVSGDS-VTV LVAFADFG-SVTFTNAEATSGGSTVGPSDATVMDIEQDGSVLTETSVSGDS-VTV
sequence2	LVPFANFG-TVTFTGAEATTSSGTVTAADATLIDIEQNGEVLTSVTVSGST-VTV
sequence3	LVQFANFG-TVTFTGASATQNGESVGVTGAQIIDLQQN-SVLTSVSTSSNS-VTV
sequence4	LVNFADFD-TVTFKDCSPSVSGSTIVDIRQSLEVLTECSTTGTTTVTC
sequence5	FVPFASFSPAVEFTDCSVTSDGESVSLDDAQITQVIINNQDVTDCSVSGTT-VSC
sequence6	FVPFASFSPAVEFTDCSVTSDGESVSLDDAQITQVIINNQDVTDCSVSGTT-VSC
sequence7	FVPFASFSPAVEFTDCSVTSDGESVSLDDAQITQVIINNQDVTDCSVSGTT-VSC

	В	I	G	Т	0	W	N	S	0	M	N
В	2										
Ι		2									
G			2								
В	2										
R											
0					2				2		
W						2				2	
N							2				2
Т				2					_		
0					2				2		
M						2				2	
N							2				2
0				Γ	2				2		
W		T	T			2				2	
N	T			T			2				2

FIGURE 2.

A STANDARD CONTRACTOR OF THE STANDARD CONTRACTOR

	В	Ι	G	Т	0	W	N	S	0	M	N
В	2										_
I		2									_
G			2								
В	2										
R											_
0					2				2		
M						2				2	
N							2				2
Т				2							
0					2				2		
W	1					2				2	
N							2				2
0	1	1			2				6	0	0
W	0	0	0	0	0	4	0	0	0	4	0
N	0	0	0	0	0	0	2	0	0	0	2

FIGURE 3.

	В	I	G	Т	0	M	N	S	0	М	И
В	2										\dashv
Ι		2							_		_
G			2						_		_
В	2										_
R											
0				8	12	6	3	2	6	0	٥
W	10	12	10	7	6	10	4	3		4	0
N	9	10	12	8	5	4	8	4	1	0	2
T	6	7	8	12	6	4	4	6	2	0	0
0	4	6	5	6	10	6	4	3	6	0	٥
W	3	4	6	4	4	8	6	4	1	4	0
N	2	3	4	6	2	3	6	6	2	0	2
0	0	Ó	1	2	6	1	1	2	6	0	0
M	0	0	0	0	0		0	0	0	4	0
N	0	0	0	0	Q	0	2	0	0	0	2

FIGURE 4.

	В	Ι	G	T	0	M	N	S	0	M	И
В											
I											
G											
В											
R											
0											
W					0	2	3	4	5	6	7
N					2						
T					3						
0					4						
M					5						
N					6						
0					7						
M					8						
N					9						

FIGURE 5.

	В	Ι	G	Т	0	W	N	S	0	W	N
В	16	10	8	7	4	3	2	1	0	0	0
I	12	14	9	8	6	4	3	2	0	0	0
G	10	12	12	9	6	6	4	3	0	0	0
В	10	10	12	10	7	4	6	4	1	0	0
R	10	9	10	12	8	5	4	6	2	0	0
0	12	10	9	8	12	6	3	2	6	0	0
M	10	12	10	7	6	10	4	3	0	4	0
N	9	10	12	8	5	4	8	4	1	0	2
T	6	7	8	12	6	4	4	6	2	0	0
0	4	6	5	6	10	6	4	3	6	0	0
W	3	4	6	4	4	8	6	4	1	4	0
N	2	3	4	6	2	3	6	6	2	0	2
0	0	0	1	2	6	0	1	2	6	0	0
M	0	0	0	0	0	4	0	0	0	4	0
N	0	0	0	0	0	0	2	0	0	0	2

FIGURE 6.

BIG-TOWNSOWN---

NOWN Similarity = 18. Gap = -2. Total Score = 16

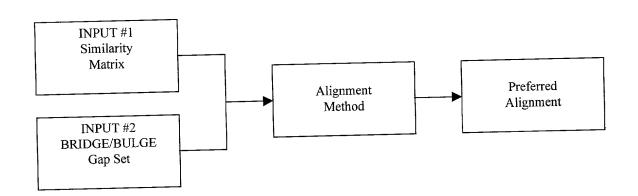


FIGURE 8

Gap Туре	Start Res.	End Res.	# Residues
BULGE	3 (G)	5 (O)	7
BRIDGE	7 (N)	9 (O)	1

FIGURE 9.

	В	I	G	T	0	W	N	S	0	W	N
В			η				^				
I			m \				κ.				
G			n //				*		\		
В			r/\				۲				
R			7/	M			K	-		<u> </u>	
0			n'	III			8)		1
W			4	III	Λ		1				
N			1/	M	M_{I}		r		\searrow	ļ.,	
Т			\Box	M	M_{-}		1		\		_
0		L		III	M_{I}		15		<u> </u>		 _
W				I	II		B	\downarrow	\searrow	_	
N				\Box	\mathcal{M}	_	f			1_	
0					M	L	ľ				-
W				1	1/1		1	\	\geq	_	+
N					\						

FIGURE 10

	В	I	G	T	0	W	N	S	0	W	N
В	2									_	_
I		2									_
G			2						_	_	
В	2										
R									2		
0					2				_	2	
W						2					
N							2				2
T				2							
0					2				2		
W						2				2	
N	1						7	6	1	0	2
0	0	0	0	1	6	0	0	1	6	0	0
M	0	0	0	0	0	4	0	0		4	0
N	0	0	0	0	0	0	2	0	0	0	2

FIGURE 11.

Express Mail No. EL533097460US 265/297 Debe 12 of 38

	В	I	G	T	0	M	N	S	0	W	N
В	2										
I		2									
G			12	7	5	6	3	0	0	0	0
В	7	9		9	2	13	6	ø,	0	0	0
R	8	6	5	12	5	1	5	6	1	0	0
0	11	œ	6	5	12	5	1	1	6	Ō	0
M	8	11		3	5	10	3	0	0	4	0
N	6	8	11	8	3	5	8	3	0	0	2
Т	6	6	8	11	6	3	5	6	1	0	0
0	3	6	3	6	11	6	3	1	6	0	0
W	1	3	6	3	4	9	6	3	0	4	0
N	0	1	3	6	1	1	7	6	1	0	2
0	0	0	0	1	6	0	0	1	6	0	0
W	0	0	0	0	0	4	0	0	0	4	0
N	0	0	0	0	0	0	2	0	0	0	2

FIGURE 12

	В	I	G	Т	0	W	N	S	0	W	N
В											
I											
G											
В				0	3	5	7	9	11	113	.15
R				3							33.002
0				5							
M				7							
N				9	-						
Т				11							
0				1.3	1				-		
M				15							
N				17							
0				19							
M				21							
N				23							

FIGURE 13

	В	I	G	Т	0	W	N	S	0	W	N
	3.6		5	6	3	0	Ö	0	0	0	0
В	16	9	2	٥	٠						
I	12	14	7	5	6	3	0	0	0	0	0
G	9	12	12	7	5	6	3	0	0	0	0
В	7	9	12	9	2	5	6	3	0	0	0
R	8	6	5	12	5	1	5	6	1	0	0
0	11	8	6	\5	12	5	1	1	6	0	0
W	8	11	8	1	5	10	3	0	0	4	0
И	6	8	11	8	3	5	8	3	0	0	2
T	6	6	8	11	6	3	5	6	1	0	0
0	3	6	3	6	11	6	3	1	6	0	0
W	1	3	6	3	4	9	6	3	0	4	0
N	0	1	3	6	1	1	7	6	1	0	2
0	0	0	0	1	6	0	0	1	6	0	0
W	0	0	0	0	0	4	0	0	0	4	0
N	0	0	0	0	0	0	2	0	0	0	2

FIGURE 14.

FIGURE 15

BIG-----TOWNSOWN
BIGBROWNT-OWN-OWN Sim. = 18. Gap = -2. Total Score = 16.



FIGURE 16

>P1;1b4k

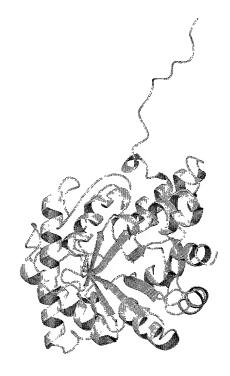
structureX:1b4k: 10 :A : 335 :A :

YPYTRLRRNRRDDFSRRLVRENVLTVDDLILPVFVLDGVNQRESIPSMPGVERLSIDQLLIEAE EWVALGIPALALFPVT: PVEKKSLDAAEAYNPEGIAQRATRALRERFPELGIITDVALDPFTTH GQDGILDDDGYVLNDVSIDVLVRQALSHAEAGAQVVAPSDMMDGRIGAIREALESAG: HTNVRI MAYSAKYASAYYGPFRDAVGSASNLGKGNKATYQMDPANSDEALHEVAADLAEGADMVMVKPGM PYLDIVRRVK: DEFRAPTFVYQVSGEYAMHMGAIQNGWLAE: SVILESLTAFKRAGADGILTYF AKOAAEOLRR*

>P1;SC001

sequence:SC001: 13 : : 340 :

EISSVLAGGYNHPLLRQWQSERQLTKNMLIFPLFISDNPDDFTEIDSLPNINRIGVNRLKDYLK PLVAKGLRSVILFGVPLIPGTKDPVGTAADDPAGPVIQGIKFIREYFPELYIICDVCLCEYTSH GHCGVLYDDGTINRERSVSRLAAVAVNYAKAGAHCVAPSDMIDGRIRDIKRGLINANLAHKTFV LSYAAKFSGNLYGPFRDAACSA::PSNGDRKCYQLPPAGRGLARRALERDMSEGADGIIVKPST FYLDIMRDASEICKDLPICAYHVSGEYAMLHAAAEKGVVDLKTIAFESHQGFLRAGARLIITYL APEFLDWLDE*



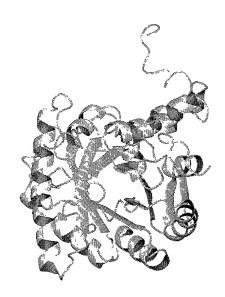


FIGURE 18

A STATE OF THE PROPERTY OF THE

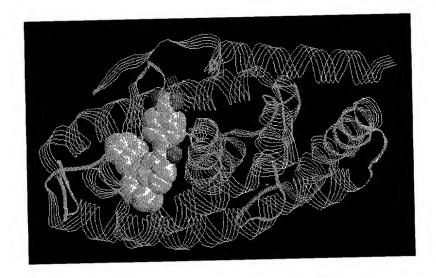


FIGURE 19

>P1;1a28

structureX: 1a28A : 701 : : 915 : :

 $\label{thm:construction} A \texttt{G} HDNTKPDTSSSLLTSLNQLGERQLLSVVKWSKSLPGFRNLHIDDQITLIQYSWMSLMVFGLGWRSYKHVS\\ GQMLYFAPDLILNEQRMKESSFYSLCLTMW-QIPQEFVKLQVSQEEFLCMKVLLLLNTI-PLEGLRSQTQFE\\ EMRSSYIRELIKAIGLRQKGVVSSSQRFYQLTKLLDNLHDLVKQLHLYCLNTFIQSRALSVEFPEMMSEVIA\\ A*$

>P1;gi7766906

sequence: gi7766906 : 27 : : 233 :

EANMGLNPSSPNDPVTNICQAADKQLFTLVEWAKRIPHFSELPLDDQVILLRAGWNELLIASASHRSIA--V KDGILLATGLHVHRNSAHSAGVGAIFDRVLTELVSKMRDMQMDKTELGCLRAIVLFNPDS--KGLSNPAEVE ALREKVYASLEAYCKHKYP---EQPGRFAKLLLRLPALRSIGLKCLEHLFF-FKLIGDT--PIDTFLMEMLE **

FIGURE 20

nkulkuran nkora recoccan kamelunis (All & Sil Mill II). Ili illihi kabe

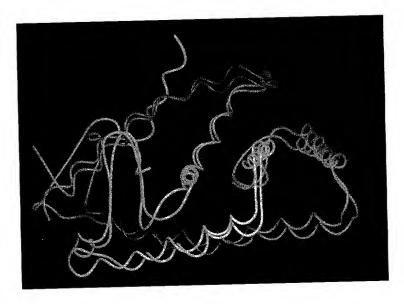


FIGURE 21

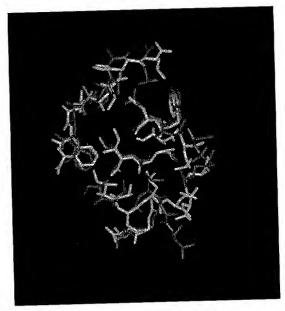


FIGURE 22

communication that the content of th

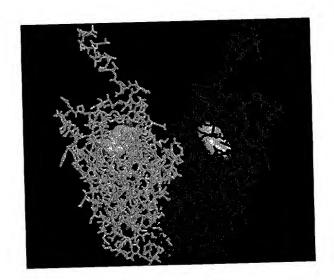


FIGURE 23

>P1;1a28
structureX: 1a28A : 682 : : 921 : :
QLIPPLINLLMSIEPDVIYAGHDNTKPDTSSSLLTSLNQLGERQLLSVVKWSKSLPGFRNLHIDDQITLIQY
SWMSLMVFGLGWRSYKHVSGQMLYFAPDLILNEQRMKE-SSFYSLCLTMWQIPQEFVKLQVSQEEFLCMKVL
LLLn----TIPLEGLR---SQTQFEEMRSSYIRELIKAIGLRQKGVVSSSQRFYQLTKLLDNLHDLVKQLHL
YCLNTFIQSRALSVEFPEMMSEVIAAQLPKIL*
sequence: gi3659931 : 14 : : 254 :
LTADQMVSALLDAEPPILYSEYDPTRPFSEASMMGLLTNLADRELVHMINWAKRVPGFVDLTLHDQVHLLEC
AWLEILMIGLVWRSMEHP--GKLLFAPNLLLDRNQGKCVEGMVEIFDMLLATSSRFRMMNLQGEEFVCLKSI
ILLNSGVYTFLSSTLKSLEEKDHIHRVLDKITDTLIHLMAKAGLTLQQQHERLAQLLLILSHIRHMSNKGME
HLYSMKCKN---VVPLYDLLLEMLD-AHR-LH*

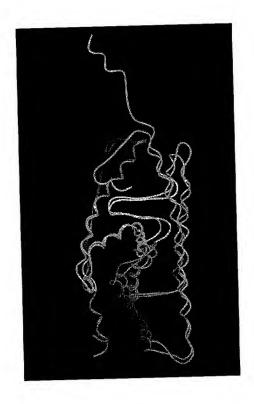


FIGURE 25

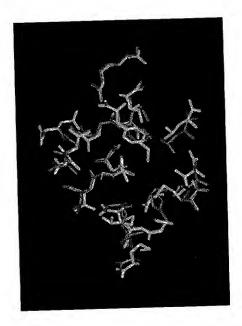


FIGURE 26

>P1;1c3w structureX: 1c3wA : 5 : : 231 : :

 $\label{thm:constraint} TGRPEWIWLALGTALMGLGTLYFLVKGMGVSDPDAKKFYAITTLVPAIAFTMYLSMLLGYGLTMVPFGGE--QN----PIYW-ARYADWLFTTPLLLLDLALLVDADQGTILALVGADGIMIGTGLVGALTKVY--S--YRFVWWAISTA-AMLYILYVLFFGF-----SMRPE-VA-STFKVLRNVTVVLWSAYPVVWLIGSEG----AGI---VPLNIETLLFMVL-DVSAKVGFGLILLRSRAIFG*$

>P1;1e12A

سجيدي وهم وهوروني الكالي المرازي المستران المالي المالي المالي المالي المالي المالي المالي المالي المالي المالي

sequence: 1e12A : 4 : : 236 :

ENALLSSSLWVNVALAGIAILVFVYMGRTIRPGRPRLIWGATLMIPLVSISSYLGLLSGLTVGMIEMPAGHA LAGEMVRSQW-GRYLTWALSTPMILLALGLLADVDLGSLFTVIAADIGMCVTGLAAAMTTS---ALLFRWAF YAISCA-FFVVVLSALVTDWAASASSAGT--A--EIFDTLRVLTVVLWLGYPIVWAVGV-----EGLALVQ SVGATSWAYSVL-DVFAKYVFAFILLRWVANNE*

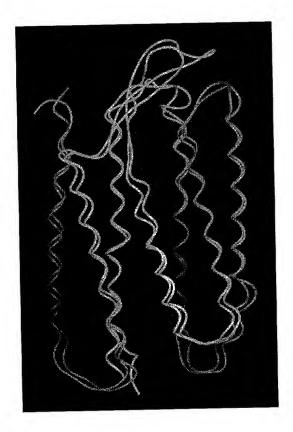


FIGURE 28

and the state of t

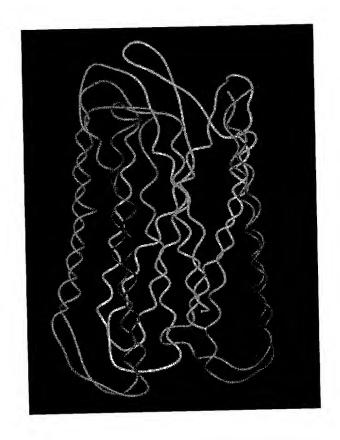


FIGURE 30

>P1;6prc
structureX: 6prcL : 14 : : 258 : : GTLIGGDLFDFWVGPYFVGFFGVSAIFFIFLGVSLIGYAASQG-P------TW-DPFAISINPPDLKYGLG
A-APLLEGGFWQAITVCALGAFISWMLREVEISRKLGIGWHVPLAFCVPIFMFCVLQVFRPLLLGSWGHAFP
YGILSHLDWVNNFGYQYLNWHYNPGHMSSVSFLFVNAMALGLHGGLILSVANP-GD----GD-------KVKTA-EHENQYFRDVVGYSIGALSIHRLGLFLASNIFLTGAFGTIASGPFWTRG*
>P1;6prcM
sequence: 6prcM : 34 : : 292 :
YSYWLGKIGDAQIGPIYLGASGIAAFAFGSTAILIILFNMAAEVHFDPLQFFR--QFFWLGLYPPKAQYGMG
I-PPLHDGGWWLMAGLFMTLSLGSWWIRVYSRARALGLGTHIAWNFAAAIFFVLCIGCIHPTLVGSWSEGVP
FGIWPHIDWLTAFSIRYGNFYYCPWHGFSIGFAYGCGLLFAAHGATILAVARFG------GDREIEQITDRG
T--AV--ERAALFWRWTIGFNATIESVHRWGWFFSLMVMVSASVGILLTGTFVDNW*

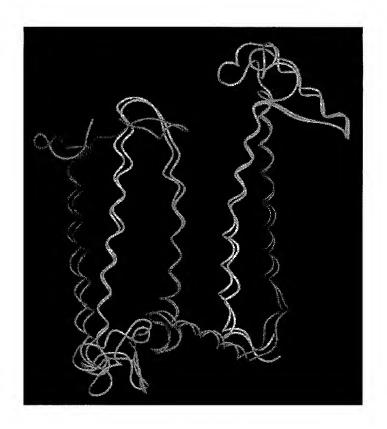


FIGURE 32

>P1;1qj8

structureX: 1qj8A: 4::148::

TVTGGYAQSDAQGQM-NKMGGFNLKYRYEEDNSPLGVIGSFTYTE-K--SRTASSGDYN-KNQYYGITAGPA
YRINDWASIYGVVGVGYGKFQTTEYPTYK-NDTSDYGFSYGAGLQFNPMENVALDFSYEQSRIRS------VDVGTWIAGVGYRF*

>P1;1bxwA

sequence: 1bxwA: 19::171:
YHDTGLINNN--GPTHENKLGAGAFGGYQV-NPYVGFEMGYDWL--GRMPYKGSVENGAYKAQGVQLTAKLG
YPITDDLDIYTRLGGMVWRADTY-SNVYGKNHDTGVSPVFAGGVEYAITPEIATRLEYQWTNNIGDAHTIGT
RP-DNGMLSLGVSYRF*

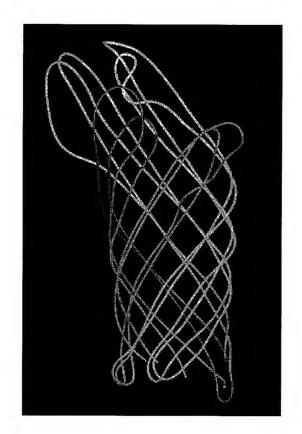


FIGURE 34

>P1;2por structureX: 2por : 1 : : 301 : ${\tt EVKLSGDARMGVMYNGDD---WNFSSRSRVLFTMSGTTDSGLEFGASFKAHESVG-----AETGEDGTV}$ $\mathtt{SA----GAFSVAASMS--DGKV-------GETSED------DAQ---EMAVAAAYT-F--G}$ NY---TVGLGYEKIDSP-----DTAL-----MADMEQLELAAIAKFGATNVKAYYADGELDRDFARAV $\verb|FDLTPVAAAATAVDHKAYGLSVDSTFGATTVGGYVQVLDIDTIDDVTYYGLGASYDLGGGASIVGGIADNDL|\\$ PNSDMVADLGVKFKF* >P1;losmA sequence: losmA : 10 : : 332 : KLDLYGKIDGLHYFSDDKDVD-GDQTYMRLGVKGETQINDQLTGYGQWEYNVQ-ANNTESSSDQAWTRLAFA ${\tt SDFFGLVDGLNFALQY---QGKNGSVSGEGATNNGRGAL---KQN------GD----GFGTSVTYD-I--F}$ D----GISAGFAYANS-----KRTDDQNQLLLGEGDHAETYTGGLKYDANNIYLATQYTQTYNATRAGSL--GFANKAQNFEVAAQYQFDFGLRPSVAYLQSKGKDLNG-YGDQDILKYVDVGATYYFNKNMSTYVDYKINLL DDNSFTRSAGISTDD*

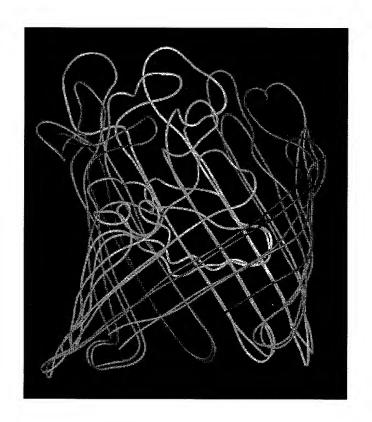


FIGURE 36

P1;2mpr structureX: 2mprA : 2 : : 427 : : DFHGYARSGIGWTGS-------G---GEQQC------FQA--TGAQSKYRLGNE--------CETYAELKLGQEVWKEGDKSFYFDTNVAYSVNQQND--WEST-DPAFREANVQGKNL---IEWLPGSTIW ${\tt AGKRFYQRHD---VHMIDFYYWDISGPGAGIENIDLGFGKLS-LAATRSTEAGGSYTFSSQNIYDEVKDTAN}$ DVFDVRLAGLQTNPDGVLELGVDYGRANTTDGYKL-ADGASKDGWMFTAEHTQSMLKGYNKFVVQYATDAMT TQGKGQARGSDGSSSFTEKINYANKVINNNG-NMWRILDHGAISLGDKWDLMYVGMYQNIDWDNNL--GTEW WTVGVRPMYKWTPIMSTLLEVGYDNVKS-QQ-----TGDRNNQYKITLA-QQ---WQAGDSIWSRPAIRI FATYAKWDEKWGYIKDGDNISRYAAAT-NSGISTNSRGDSDEWTFGAOMEIWW* >P1;1a0tP sequence: 1a0tP : 4 : : 413 : EFHGYARSGVIMNDSGASTKSGAYITPAGETGG-------AIGRL-----GNQ--------ADTYVEMNLEHKQTLDNGATTRFKVMVADGQTSYNDWTASTS-DLNVRQAFVELGNLPTFAGPFKGSTLW AGKRF--DRDNFDIHWIDSDVVFLAGTGGGIYDVKWNDGLRSNFSLYGRNFGDIDDSSNSVQNYILTMNHFA GPLQMMVSGLRAKDNDERKDSNG-NLAKGDAANTGV----HALLGLHNDSFYGLRDGSSKTALLYG-HGLG AEVKGIGSDGA-----LRPGADTWRIASYGTTPLSENWSVAPAMLAQRSKDRYADGDSYQW ATFNLRLIQAINQNFALAYEGSYQYMD--LKPEGYNDRQAVNGSFYKLTF--APTFKVGSIGDFFSRPEIRF YTSWMDWSKKLNNYASDDALGS---DGF-----NSGGEWSFGVQMETWF*

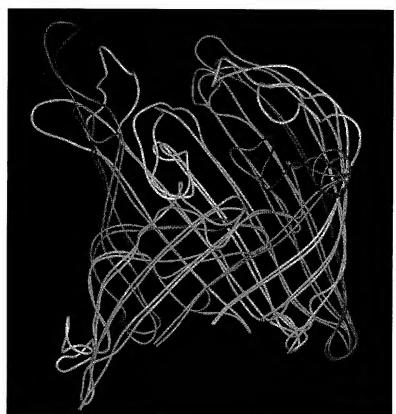


FIGURE 38